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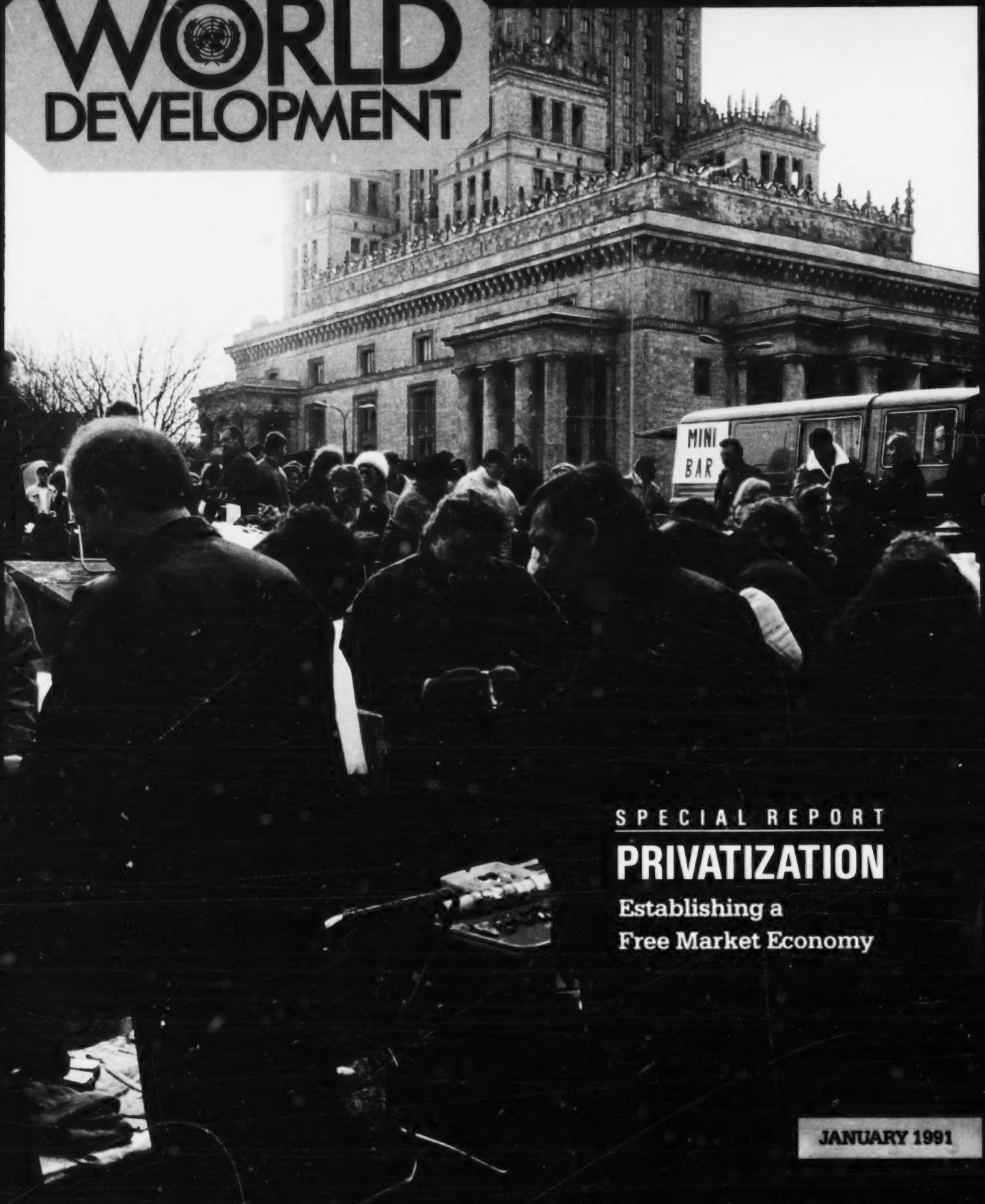
WORLD DEVELOPMENT



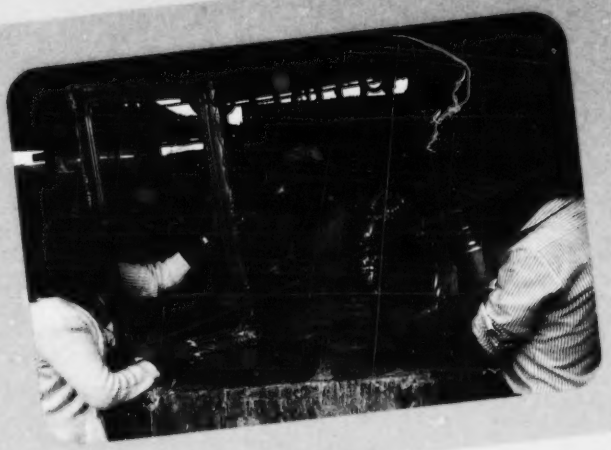
SPECIAL REPORT

PRIVATIZATION

Establishing a
Free Market Economy

JANUARY 1991

THE ABC OF UNDP



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World Development

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VOL.4, NO.1

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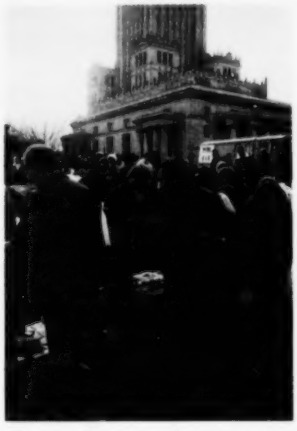
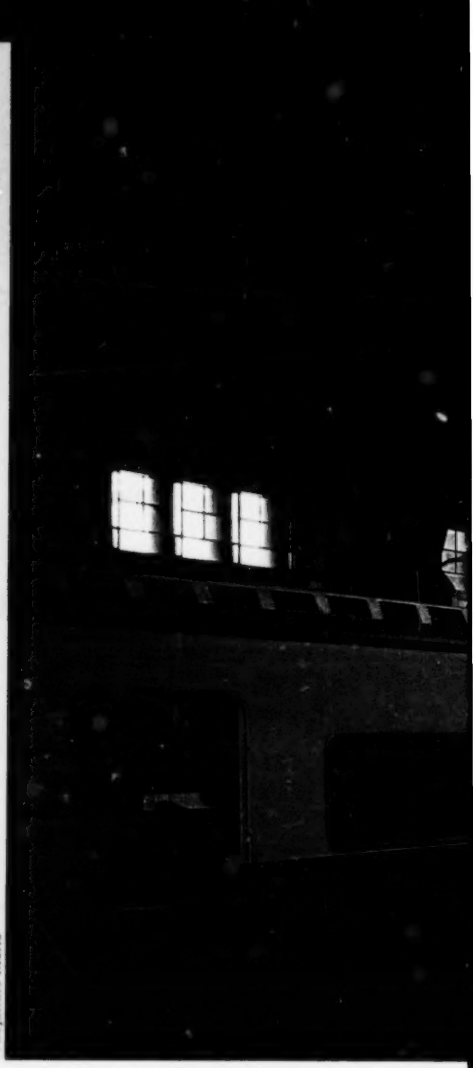


Cover: **Warsaw street market by Remigiusz Bierzanek.**

A Slim-Fast Recipe for an Overweight State

By Emma Robson



Alejandro Merle

Emma Robson, UNDP

Buenos Aires, Argentina—Despite rich natural resources and a well-educated and highly skilled population, Argentina is limping through its tenth year of recession, deep in debt and in shock from years of inflation. The cause is rooted in a more than 40-year habit of governments delving into a seemingly bottomless treasury to fuel Argentina's growth. Instead, it was the government that grew and grew and grew.

"Argentina was one of the ten major economic powers after World War II," says Alvaro Alsogaray, leader of the Centre Union Democratic Party and a long-term proponent of free-market policies. "Now we rank somewhere between 70th and 80th."

The government subsidized exports, imports, trains, buses, houses, and drinking water. Like a mother hen attending its brood, the government

When the national railways are privatized, commuters will have to start paying their way.

ARGENTINA

gave subsidies and tax breaks to private companies, then took them over and absorbed their debt when they failed.

But for the past 18 months, Argentina has been on a crash diet. True to his promise made on coming to power to perform "major surgery without anaesthetic," President Carlos Saúl Menem has slashed away at all government subsidies. He is also enforcing the retirement of the estimated 30 per cent of public employees who have remained on the payroll well past the mandatory retirement age of 65. The cornerstone of his short, sharp treatment for an ailing economy is a sweeping privatization plan.

President Menem aims to cease government involvement in commercial activities by selling or leasing controlling stakes in all state companies. Few Argentines will become shareholders, since the companies are not being sold to the general public, although employees of privatized firms are being offered ten per cent of the shares. Some fear that the programme's ultimate goal of greater efficiency will carry a high price at a time when they can least afford it. Nine million of the country's 33 million people live below the poverty line. Another million at least are expected to join them when the efficiency measures bite.

Yet opinion polls show a majority of Argentines in favour of the President's get-tough approach. They see it as a means of banishing the panic that has beset the nation during recent bouts of hyperinflation that have reached up to 250 per cent in a single month. In the longer term, they hope that today's austerity will eventually revive the high quality of life and world standing they used to know before the government

Only one out of ten Argentines has a telephone.

Opening the bids from foreign investors for a 60 per cent stake in ENTel.

became addicted to deficit spending.

There is no time to lose. Argentina's public sector employs one-fifth of the nation's workforce. Its companies have amassed US$15 billion in debt and together lose $15 million a day. "This dominant and outsized state had reached the point at which the government could barely sustain these companies," says Mr. Alsogaray, who advises President Menem on debt. "It could not finance them, nor sustain their losses."

In June 1990, after one year in office, the government sold the national telephone company, ENTel, to a Spanish, Italian, French and Argentine consortium. It also sold a controlling stake in the national airline, Aerolíneas Argentinas, to Iberia, the Spanish flag-carrier. The government is now forging ahead with the privatization of the other companies most likely to attract investors: National Roads, State Railways and the petroleum company, YPF. Management of services including post, electricity, water supply and sanitation, is being taken over by private operators.

In the near term, prices for such basic services are bound to rise above the unrealistically low levels maintained by the government in the past. Combined with inflation, those price hikes are likely to be sorely felt. But on the bright side, Menem expects vast improvements in the delivery of services. "It's better that people insult me for a year and applaud me for a century than the other way round," Mr. Menem said shortly after being inaugurated.

ENTel's two new owner groups have promised to spend $500 million a year on repairing 100,000 out-of-order lines and providing crackle-free calls, quick connections, more direct lines abroad, and enough operators to answer inquiries. Privatization should also put an end to an up to 40-year wait for phone

UNDP photos by Emma Robson

Argentines are buying less food as a result of inflation.

installations. But how many of the nine out of ten Argentines now without a private telephone are likely to be able to afford one soon is an uncertain matter.

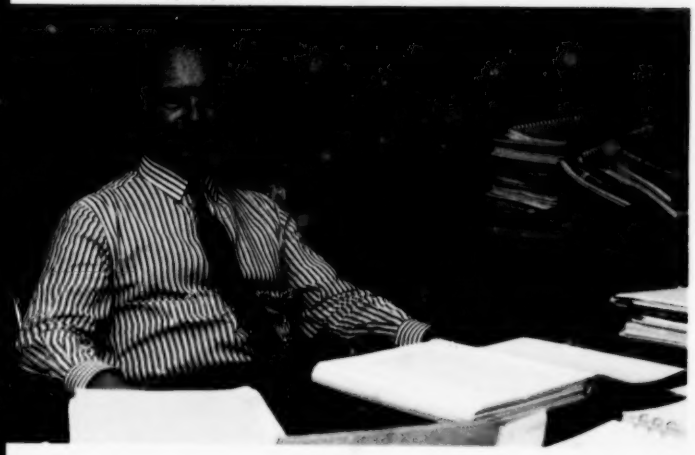
The plan to revamp the state railways by leasing them to groups of private operators also stirs anxiety among some businesses, which fear a hike in freight rates and the possible closure of unprofitable routes. Commuters are certain to see a change in their ways. Due to an almost total absence of ticket takers, over 70 per cent of the capital's rail commuters now travel free. Such a level of evasion helps explain last year's $581 million loss and why half of the company's rolling stock is out of order. If Argentina's trains are to work better, ticket prices will have to rise.

Years of persistently high inflation and a lack of credit have already squeezed spending, savings and investment, and spurred the exodus of billions of dollars to foreign bank accounts. People are eating less. Sales of food, clothes and books are down. "We are producing fewer than half the cars we did 20 years ago," says Alejandro Rausch, senior economist with a World Bank programme aimed at improving public sector management.

One of the most negative impacts of the austerity plan will be on employment. Today's jobless rate is estimated at 18 per cent of the workforce. In years past, the state kept unemployment relatively low through a policy of absorbing failed private companies and putting employees on the government payroll. There are virtually no unemployment benefits in Argentina, and even before the recent enforcement of retirement, the nation's pension funds were suffering from a shrinking pool of money due to inflation, payment evasion and an ageing population. "The number of new people drawing pensions each year was rising by six per cent, while the number of fund contributors was rising by only one per cent," says Adolfo Canitrot, secretary for economic co-ordination under the previous government. "It's

Photos by Alejandro Merle

UNDP consultant Roberto Martinez Nogueira.



Economist Alejandro Rausch.

doubtful the pension system will be able to absorb all the newcomers."

Until inflation is controlled, pension payments, which are controlled by the state, will continue to dwindle in value. "Pensioners are now getting a meagre $130 a month," says Roberto Martinez Nogueira of the Institutional and Social Development Analysis Group (GADIS). UNDP has hired Mr. Martinez Nogueira to help devise an emergency programme to assist mothers and their children most severely affected by joblessness and inflation.

Surprisingly, the President's medicine has proved popular with the people, who had expected a more socialist line. His party's manifesto promised to continue the policies of former President Juan Domingo Perón, whose sweeping nationalization programme of the 1940s is blamed by some economists for touching off the country's relentless economic decline since then.

When President Menem came to power, the treasury was empty, and Argentina, the developing world's third largest debtor, faced few prospects of garnering more money. It had not paid a cent on its debt in over a year when President Menem took over in July 1989. Just to keep the public sector afloat, previous governments were forced to run up large deficits which they covered partly by printing money. This in turn led to bouts of hyperinflation. "The public sector's structural problem had become so severe," says Mr. Rausch, "that at least partial privatization was probably one of the only solutions." President Menem also faced considerable political pressures to produce positive results fast.

Most Argentines seem to relish a new openness stemming from the first handover of power to a democratically-elected opposition party. In the increasingly bold press, long suppressed tales of state corruption and inefficiency are now openly aired, serving to justify the President's surgery.

One aspect of Argentina's privatization plan is ingenious. Foreign buyers of stakes in state companies are encouraged to swap chunks of Argentine debt they hold or buy at discount to cover part of the purchase price. The attraction to banks is to offload part of the $40 billion they hold in non-performing Argentine debt at par value.

The allure to the government is to rid itself of part of its $60 billion debt and millions of dollars in annual interest obligations. To date, Argentina's privatizations have enabled the government to wipe out more than $7 billion—nearly ten per cent of its foreign debt. The scheme, which has been practiced successfully in Chile and Mexico, involves no creation of money and therefore does not contribute to inflation.

News that last October's inflation rate fell to 7.7 per cent—the first single digit number in 11 months—is one recent sign that Mr. Menem's slim-fast policies are beginning to pay off. Higher tax receipts and declining capital flight are others. If Argentines can stave off adversity a while longer, they may well be applauding the first president in over 40 years to set Argentina—slimmer but stronger—on the road to prosperity. ■

Poland's Uphill Path to Privatization

By Christopher McIntosh

Warsaw, Poland—In their effort to transform their society into a market-oriented democracy, the Poles have already erased most of the obvious outward symbols of Communism. But one conspicuous relic of the old order remains in the centre of Warsaw: the vast Palace of Culture and Science, built in the 1950s in the forbidding neo-classical Stalinist style. Today it frowns grimly down on the horde of private street traders who have set up their stalls in its shadow. Ironically, many of the building's offices have been leased to western companies, and its lower levels have become a shopping mall.

Twenty minutes away by tram is a more modest building housing the new office of the United Nations Development Programme (UNDP), which opened in April. UNDP's Representative is Henrik Olesen, 45, a Dane whose last posting was in Mauritania and who

Enjoying the new economic climate, Warsaw street traders operate in the shadow of the Palace of Culture and Science.

Christopher McIntosh - UNDP

Floyd McCurdy (*left*) and Geoffrey Grady (*second left*), of the UNDP-supported Task Force on Company Assistance, tour the Wegierska Gorka foundry.

more recently worked on management training at UNDP headquarters. He describes himself as a trouble-shooter who likes "a lot of difficulties."

Poland, at its present stage of development, faces many difficulties. The previous government, which took over in August 1989, inherited three-digit inflation, empty shelves, stagnant output, a large budget deficit and a huge foreign debt. Although inflation has been brought down and shelves are no longer empty, the country has only just begun to tackle the task of setting up a market system. This involves a daunting array of inter-related problems, ranging from upgrading the telecommunications system to raising cash for capital investment.

Mr. Olesen believes that UNDP has a pivotal role to play in Poland's plans for private sector development. That view is shared by Jan Woroniecki, director for the United Nations System in the Polish Ministry of Foreign Affairs. "We have a long and positive record of co-operation with UNDP going back three decades, and we value the kind of neutral advice that it can provide," he says.

One way that UNDP is providing advice is through its Interregional Network on Privatization, established in 1988 to enable countries engaged in privatization to pool their experience. The Network's Co-ordinator is Professor Vemuri V. Ramanadham, an Indian economist currently based in New York. A leading world expert on privatization, his advice is valued by governments from Nigeria to Nepal. He has visited Poland three times this year to advise the government on selling public enterprises and increasing the competitiveness of those the state wishes to retain.

On his most recent visit last October, Professor Ramanadham led a seminar on privatization at which international experts on the subject shared their knowledge with senior Polish politicians and government officials. This was the first seminar of its kind to be held in Poland, and others will follow.

The Professor emphasizes that the priority should not be privatization as such but what he calls "marketization" — making an enterprise efficient and competitive by market standards. There are many ways of doing this other than simply selling it off. One option is to lease the enterprise to a private concern. Another is simply to reorganize the management along private-enterprise lines.

"Our role," says Prof. Ramanadham, "is to tell the Polish people about the options available, to assist them in long-term planning, and to help them understand that decisions about privatization should always be part of a wider strategy."

Poland has over 8,000 public enterprises. Many will be privatized. Some will become joint enterprises with foreign firms. Meanwhile there is a very difficult transition period to contend with. "For over four decades," Prof. Ramanadham observes, "the Polish people have been accustomed to taking no autonomous managerial decisions. Now they are having to develop unfamiliar entrepreneurial skills."

The old economic system worked on a command basis. A factory manager would be given an annual supply target by the government and in turn would request material and equipment to meet the target. The price of the product was fixed and the factory was guaranteed against loss, through subsidy if necessary. In the new climate, firms are having to ask themselves hard and unfamiliar questions about production goals, costing, pricing, product design and market research. They are also having to face the prospect of bankruptcy if they fail.

To assist Polish industry in making the transition, UNDP is helping to support an international task force headed by Kevin McDonald, an American consultant with long experience in improving the efficiency of large manufacturers through enterprise restructuring.

Mr. McDonald is not alone. He has a team of 50 American business experts assisting him. But, faced with over 8,000 enterprises, they are concentrating on those that are potential candidates for privatization or joint ventures. An example is the Ursus tractor company, located on the outskirts of Warsaw. Currently, the firm is burdened by debts and a large stockpile of finished goods. But it has a good product, sold at highly competitive prices. This applies both to its tractors and to the metal components produced by its foundry. Mr. McDonald and his team are currently assisting the company in rationalizing its production and costing practices, helping it to find foreign markets, and exploring possible joint ventures.

Another factory the task force has been investigating is the Wegierska Gorka foundry, located in the south near the Czech border. The expert assigned to examine its viability was Floyd McCurdy, a former General Motors foundry manager, sent to Poland through the International Executive Service Corps, a volunteer organization for retired US executives and technical experts. He was accompanied by Geoffrey Grady, another task force member.

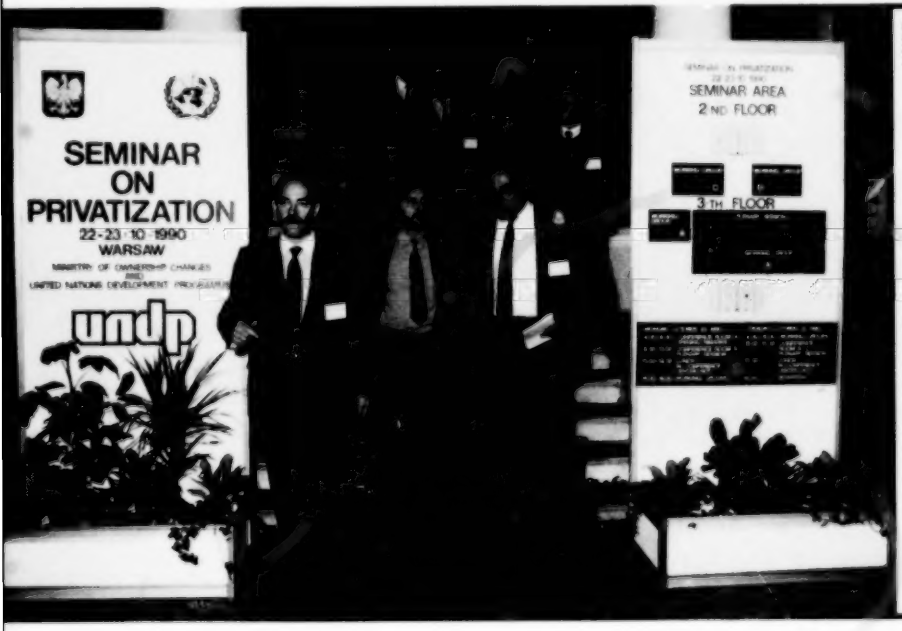
Mr. McCurdy toured the factory and interviewed the senior staff, jotting down such details as the size of the melting flasks, the pouring temperature and the percentage of scrap metal in the mixture. His verdict: with savings in the cost of energy and materials, the factory could become competitive very quickly.

UNDP's support for Poland's reforms also includes making available consultancy services that can be deployed in a variety of areas. This "umbrella project," as it is called, is providing experts under the special UNDP programme known as TOKTEN—Transfer of Knowledge through Expatriate Nationals. TOKTEN taps the enormous reserve of expertise among the estimated eight to ten million Poles living abroad. In addition to speaking Polish, these expatriates have acquired valuable experience working in market-based economies and are eager to transfer their skills to their native land.

The "umbrella project" is also enlisting foreign experts from two other UNDP programmes. The UN International Short-Term Advisory Resources sends managerial and technical advisers to assist private and parastatal enterprises in developing countries. United Nations Volunteers is a programme that provides middle-level consultants at low cost for development activities. It is intended that over 70 consultants under the "umbrella project" will be fielded by the middle of 1991.

These specialists are prepared to advise industry and the government on a wide range of issues including privatization, public sector management, banking, capital markets, technological development, environmental management and the provision of a social safety net. UNDP and the Polish government have each contributed US$500,000 to the "umbrella project" and are seeking a further $6 million from donor countries and international organizations. If this is forthcoming, the Polish government will contribute a further $3 million.

The Poles are still at a very early stage in what will be a long and difficult process of economic transformation. Like Warsaw's Palace of Culture and Science, the past has a long shadow, and strategies are subject to change as are governments under the new democratic process. ■



UNDP

Over 60 top government officials attended Poland's first privatization seminar in October. Taking a break during the meeting (*front row, left to right*) are Henrik Olesen, UNDP's Representative in Warsaw, Waldemar Kuczynski, Ministry of Ownership Changes, and Galal Magdi, Director of UNDP's Division for Private Sector Development.

TRADE

INDONESIA

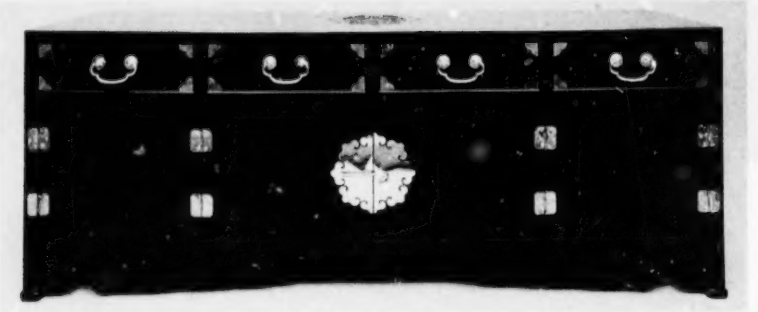
Carving a New Niche in Foreign Markets

By Cherie Hart

Han Sien (*right*) and Jean-Marie Van Isacker examine the joints of a table.

Empire style side chair.

Chinese style side cabinet.



An antiques expert puts an old face on new furniture in Indonesia

Jakarta, Indonesia—Han Sien (known to everyone as Han) drives through the jammed streets of Jakarta to his furniture factory in the heart of an urban squatter settlement. Inside the single-storey plant, fluorescent lights hang from a low ceiling. The floor is covered ankle-deep in wood shavings Dozens of carvers, hunched over long tables, meticulously chisel blocks of teak into furniture.

Half-way around the world, Jean-Marie Van Isacker climbs onto a Manhattan subway and journeys to his plushly carpeted, expensively decorated office at Christie's auction house on Park Avenue. As the Assistant Vice President of the world's oldest fine arts auctioneer, he has spent his life appraising high-priced furniture and meeting wealthy, private collectors of big ticket antiques.

Separated by culture and twelve time zones, Han and Mr. Van Isacker appear to live in vastly different worlds. It took a unique business match-making service to recognize that these men, at opposite ends of the globe, actually shared a common passion. It was through this service that this unlikely pair was brought together and their lives were dramatically altered.

The United Nations International Short-Term Advisory Resources (UNISTAR), a technical assistance service of the United Nations Development Programme (UNDP), matches developing country requests for technical and managerial expertise with highly skilled advisers. Drawn from private companies and organizations, UNISTAR advisers are made available for short-term problem-solving assignments at minimal cost.

Han had encountered design problems with his furniture, which attempts to reproduce 18th and 19th century European styling along with some ancient Chinese designs. He knew that in order to make a dent in the lucrative European and US markets, he had to improve his designs.

Each chair, table, desk, chest of drawers and armoire he manufactures is meant to be a faithful reproduction of traditional European or Chinese pieces. Somewhere between the high-priced world of antiques and mass-produced popular classics, Han's replicas were good, but not quite sophisticated enough.

Anxious to expand the country's furniture exports, officials from the Indonesian government encouraged Han to contact UNISTAR. The government hoped that UNISTAR could help boost the export potential of Han's company, already a leading furniture manufacturer in the country. Han employs 200 craftsmen who churn out as many as 3,000 pieces of furniture a month. His nearly completed new plant in Tangerang, 40 kilometres west of Jakarta, could employ an additional 100 workers and boost production five-fold.

Han did not need much convincing. In January 1990, he went to UNDP in Jakarta and requested assistance for a UNISTAR expert to advise him on ways to eliminate his design flaws.

New York-based UNISTAR consultant Irving Koons received Han's request. "I figured that one of the world's leading auction houses—Christie's—would be the best place to find an expert in antique furniture who could help Han," says Mr. Koons, who is himself an industrial designer. "When we look for an expert, we shoot for the top."

Sure enough, Mr. Van Isacker was willing to tackle the job. "The opportunity to see another part of the world, and, at the same time help a business in a developing country was too great to turn down," says Mr. Van Isacker. "When Mr. Koons showed me Han's furniture catalogue, I saw immediately how I could make design improvements. Han had the craftsmanship, but the detail was all wrong."

Mr. Van Isacker certainly had the experience to recognize even the

Photo: Hart - UNDP

A draftsman reproducing a piece of furniture from a photo.

most subtle flaws. Before working at Christie's, he spent four years as a specialist with Sotheby's in Brussels and London, appraising more than 3,000 pieces of English and Continental furniture a year.

In early July, he travelled 39 hours by plane to Jakarta for a two-week UNISTAR assignment at Han's factory. His travelling expenses, board and lodging were paid for by Han. As is customary with most UNISTAR assignments, the expert contributes his time free of charge and the company or government requesting the assistance pays all expenses.

During his first day at the plant, Mr. Van Isacker shed his silk tie and rolled up the sleeves of his button-down shirt. From dawn until dusk, the two men talked about furniture, sometimes analyzing a single chair for over three hours. During their long sessions together, Han spoke Dutch and Mr. Van Isacker spoke Flemish. Communication was not a problem. "He is Belgian and I am Indonesian, but we both speak furniture," said Han.

They pored over photographs of 18th and 19th century English and French antiques, comparing them with Han's reproductions. Errors abounded. The tapering of the legs on Han's Hepplewhite chairs was too severe. One Louis XVI chair had only eight flutes per leg when it should have had twelve. Mr. Van Isacker pointed out that such subtle mistakes could make a difference in overseas markets where competition in reproduction furniture is fierce. The advantages Han has over other manufacturers, he said, was his access to highly skilled craftsmen and his proximity to quality teak in central Java.

"Your main problem," Mr. Van Isacker told Han, "is that you are using unsatisfactory photographs for your models, instead of using actual antiques. You cannot make a good three-dimensional reproduction from a bad two-dimensional photograph."

In one instance, Han's craftsmen carved a flat rosebud onto the back of a chair. The actual antique from which it

***From left to right*: Recently reproduced George III bookcase, Regency style dining table and Louis XVI style armchair.**

was copied had a protruding rosebud. The photograph of the chair, however, made the flower appear one-dimensional. "Mr. Van Isacker showed me how to bring the flower to life," says Han. "I overlooked many details like that. Working with him was like fine-tuning poetry."

In a matter of days, the two men had become an effective business team. Theirs was an immediate bond which sometimes forms between businesses and the 260 UNISTAR advisers who are dispatched to help them in more than 52 developing countries. "We are the brokers or match-makers," says Edward Mattes, Manager of UNISTAR at UNDP headquarters in New York. "Our job is to locate the right expert to handle a specific need in a developing country. In some instances, the chemistry really works and a long-term business relationship is established."

Even Han and Mr. Van Isacker did not anticipate how much their lives would be altered after their meeting. In the short-term, they decided that Mr. Van Isacker would locate a few pieces of antique furniture and send them to Han to use as prototypes. He would also send better reference books, with high quality photos of European antiques. They narrowed down the types of furniture that Han should be making, choosing popular best-selling models like the Queen Anne chair. They made tentative plans to meet again when Han's new factory was completed and Mr. Van Isacker's suggested design changes had been implemented. They said good-bye at the airport.

But that was not the end of their business dealings. A week later, Han faxed a contract to Mr. Van Isacker in New York asking him to become the sole distributor of Han's furniture in North America. Two days later, Mr. Van Isacker resigned from Christie's to take the job. ■

Charlie Hall / UNDP

A craftsman carving a fine detail on a teak table.

Agricultural engineers Merwat Sabry and Hahid Said tend pepper plants at the Dokki Centre.

Wave of the Future?

Growing crops under plastic boosts yields seven-fold

By Mary Lynn Hanley

Cairo, Egypt—Merwat Mohammed Sabry and Hahid Mohammed Said examine the progress of the sweet pepper plants they have nurtured.

Amal Amar Murad measures out just the right amount of chemicals she will need to raise juicy tomatoes hydroponically, which involves growing them without soil, in a mixture of water and nutrients.

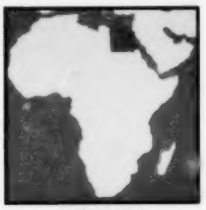
Hayam Gemin and Samar Ridah check on a new crop for Egypt—Chinese mushrooms. These are doing nicely on blocks of moist straw implanted with spores, much as nature generates mushrooms on damp tree trunks.

The five agricultural engineers are among the current trainees and employees of the Ministry of Agriculture and Land Reclamation's Dokki Research and Training Centre, an island of green amidst Cairo's ever-expanding sea of concrete. They are exploring the potentials of "protected cultivation," intensified production of vegetables and fruits under plastic greenhouses using carefully controlled amounts of water and fertilizer. The technology holds great promise for coaxing maximum food from limited land, and helping the government realize its goal of a yearly 3.5 per cent increase in agricultural production. Since 1988 the Dokki Centre has trained 800 specialists in protected cultivation, assisted by a US$1.3 million grant from the United Nations Development Programme (UNDP) and technical support from the Food and Agriculture Organization of the UN (FAO).

Egypt's population—now over 53 million—continues to grow at the rate of 2.7 per cent a year. Some desert lands are being reclaimed for agriculture—most notably in Noubaria, 150 kilometres west of Cairo, where 875,000 hectares are being made productive.

Photos by Mary Lynn Hanley - UNDP

Peppers grow especially well under protected cultivation.



EGYPT

But this is a slow and costly process. Only about four per cent of the country's total land area is presently under cultivation. The lag in growing more food has reduced the agricultural trade balance from small yearly surpluses in the mid-1970s to deficits as high as $2 billion a year in the 1980s. Egypt must now import half its food.

On economic grounds alone, protected cultivation is very attractive to farmers. A typical plastic greenhouse covering 500 square metres costs $2,500. Regular supplies of quality seeds, fertilizers and pesticides are also required, and people must be trained in intensive crop management. However, the expenses can be offset by high profits. Protected cultivation can lead to seven-fold increases in land productivity, according to Ayman F. Abou-Hadid, National Director of the UNDP-supported Protected Cultivation project at Dokki.

"A good average in the open fields is three kilogrammes of tomatoes per square metre of land," says Mr. Abou-Hadid. "We get as much as 20 kilogrammes per square metre under plastic." Moreover, growing crops protectively requires two thirds less water than growing them in open fields. "That saving is crucial to us as we depend entirely on limited water from the Nile," says Mr. Abou-Hadid.

Egypt began practising protected cultivation commercially in the mid-1980s with structures imported from Italy, Japan, and Jordan. Now several domestic factories are producing materials for greenhouses, including the Plastics Development Centre for Agricultural Purposes in West Noubaria, supported by UNDP and the UN Industrial Development Organization. Thousands of greenhouses have sprung up on newly reclaimed lands—two-thirds of them privately owned.

The Dokki Centre is a nucleus for research, training and information con-

Photos by Mary Lynn Hanley, UNDP

Flowers, which thrive under plastic, find a good market in Europe.

Chinese mushrooms cultivated on blocks of moist straw are a new crop for Egypt.

cerning all aspects of protected cultivation. Like Mr. Abou-Hadid, who is an Associate Professor of Horticulture at Ain Shams University in Cairo, its 40 trainers are all Ph.Ds affiliated with other universities and research centres who work at Dokki part-time. "We started our research to understand the problems facing protected agriculture in our local climate," says Mr. Abou-Hadid. "This is a new technology. The water and nutrient requirements are entirely different from those required for an open field."

Pest control and disease management also differ, according to Mr. Abou-Hadid. "In the open fields insects and diseases get free transportation to other fields," he says. "Under plastic, control is a lot easier. If you cover a house with mesh you can prevent insects from entering and keep plants free of them with minimal spraying."

Cut flowers and fruit crops do well under plastic, including pineapple, which cannot be grown in Egypt's open fields due to the country's cool nighttime temperatures. The technology is also especially useful for the production of virus-free rootstocks for citrus and olive trees. Under protective plastic, the ten years normally needed for a new olive tree to bear fruit can be cut in half.

Another advantage to protected cultivation is that products can be produced off-season, providing farmers with incomes and consumers with supplies year-round. Despite deficits in grain, meat and cooking oil, Egypt is now self-sufficient in most vegetables. There is also a considerable market for horticultural exports in European and Gulf countries.

Courses at the Dokki Centre are offered free-of-charge. Many trainees, of whom at least one third are women, are recent graduates of agricultural colleges who plan to apply for the five acres of land and one greenhouse that the government is offering to qualified applicants in newly reclaimed desert areas. Others are already practising farmers such as Abdul Waheb, who grows fruits, vegetables and wheat as well as clover for fodder in Noubaria. "I came to this course to help me with my work," she says. "My watermelons are grown under protected cultivation. I also grow tomatoes, cucumbers and cantaloupes."

For engineers who will be responsible for the operation of large farms, the Centre offers specialized courses involving the use of computers for climate control, irrigation, plant nutrition and pest management. Dokki also supports five satellite centres around the country, as well as extension teams which are imparting the new techniques to 3,000 producers. All trainees leave with the names of experts in the five field stations they can contact for advice. The Dokki Centre welcomes trainees from other Arab countries and there are plans to soon make courses available to students from other African countries.

For Egypt and other developing countries facing chronic food deficits, protected cultivation could be the wave of the future. ■

BUSINESS

Going for the Gold

By Emma Robson

Bamako, Mali—In the 15th century, Malian Emperor Kankou Moussa sent world gold prices plummeting by carrying eight tonnes of the yellow metal as a present to Mecca. In the centuries that followed, gold supported thousands of prospectors, who gouged it out of the surface rocks with primitive tools, and artisans who crafted it into jewellery. But it was produced in such small quantities that it barely made an impact on the national economy.

Few visible pickings remain, but the invisible pickings, running through the red, iron-rich soils of Mali, could be vast. "Our potential seems quite considerable," says Hilarion Traoré, Deputy Director of Mali's Directorate of Energy and Mines.

By most accounts, his assessment is on the modest side. The Directorate has

A laboratory technician tests soil solutions for gold content.

Emma Robson/UNDP

After sifting the top layers of earth, miners probe up to 95 metres deep with the help of explosives.

Photos By Emma Robson - UNDP

Artisans smelt gold in Bamako's crafts market.

been prospecting for ten years under a project financed by the United Nations Development Programme (UNDP), and executed by the UN Department of Technical Co-operation for Development (UN/DTCD). More than $8 million in UNDP investment has helped pinpoint several promising gold deposits.

In early 1989, BHP-Utah, a subsidiary of Australia's Broken Hills Properties, one of the world's biggest mining firms, started probing a surface mine abandoned centuries ago near the village of Syama in southern Mali. An early feasibility study had estimated the mine's gold yield at two tonnes. Further exploration by BHP-Utah uncovered vast underground caverns, ancient implements, and a much higher gold potential of six tonnes. On that evidence, the company decided to invest US$34 million in setting up a mine. With the help of lawyers contracted by UNDP, the government drew up a contract that set taxes and royalties on the company's earnings, and a BHP subsidiary was established in which the Malian government invested $8 million, giving it a 20 per cent stake. "Subsequent research has shown that rather than six tonnes, there are probably 103 tonnes of gold," says David Huggins, Director General of the BHP-Utah subsidiary. "This has the potential to be one of our biggest gold mines."

Mr. Huggins now foresees his company spending 20 years or more in Mali, rather than the three years he bargained on staying in order to make the company's required return on investment. "We plan to invest $60 million in a second phase which will go up to 95 metres deep," he says. If gold prices

Hilarion Traoré, Deputy Director of Mali's Directorate of Energy and Mines.

remain above $360 an ounce. In 23 years, the company's total projected investment of $94 million should produce more than $1.3 billion in gold. The gold is smelted on site and made into ingots, which are more than 99 per cent pure. The ingots are then flown for final refining to Switzerland. On consignment days, Mr. Huggins flies a government official from Bamako, the capital, to Syama to witness the weighing of the ingots. "In Mali, you hear so many rumours about bribery and embezzlement," says Mr. Huggins, a British-born naturalized Canadian. "We are determined to maintain the utmost transparency in our operation."

After each shipment, the government is sent a royalty cheque representing five per cent of the gold's market value. This will rise to 15 per cent after three years, when the company's capital costs are paid off. In addition, the government will earn 20 per cent of the profits and a further 45 per cent corporate tax on the company's earnings. "Over 15 years," says Mr. Huggins, "our mine alone should make at least $200 million for the government. If you had four, five or six of these, it could make a big difference to Mali's balance of payments."

Besides reducing Mali's financial burden—its foreign debt almost equals the value of the country's total annual economic output of $2.4 billion—gold production is creating jobs and new sources of income. In a desolate region which relies on subsistence farming, the Syama mine has already created work for 200 Malians.

Madani Diallo, who co-ordinates the UNDP project, estimates that there are as many as 20 other mines with deposits similar to the Syama mine. "What's more, we have only thoroughly surveyed a tiny fraction of the country." The surveys undertaken have also convinced Malian geologists that Mali has undiscovered petroleum reserves.

Over the past ten years, prospectors have surveyed 1,000 square kilometres in the Syama region—still less than one-thousandth of the country's total surface area. More than 50 Malians were trained to carry out this work by an Italian chemist, a Canadian drilling expert, a Swiss geophysical expert, and Mr. Diallo, a Soviet-trained Malian prospecting expert. "We now have technicians as competent as you will find in the US," boasts Mr. Diallo.

Armed with advanced equipment and a deeper knowledge of prospecting techniques, geological and chemical analysis and computer programming, the Directorate of Energy and Mines is now preparing further geological maps. To finance the cost of more extensive prospecting, the Directorate is marketing its newly-acquired expertise to foreign companies. Already, business is starting to trickle into its laboratory, which is flush with state-of-the-art chemical analysis and data processing equipment. "Before, foreign companies were deterred from coming to Mali because they could not do soil or chemical analysis here," says national project director Namakan Damafing Keita.

The Directorate is hoping to attract sufficient business from foreign companies to finance the preparation of an inventory of the entire country's gold potential. To meet this need, UNDP helped set up a mineral resources services unit. This new unit provides information on Mali's mineral potential, acquires business for its laboratory, and handles all legal transactions.

The unit's current list of contracts range from analysis of Guinean samples for a Belgian company, to analysis of Malian samples for a German company interested in mining gold in the west of the country. The laboratory is also analyzing the quality of petroleum imports for public and private clients, providing a service which previously did not exist in Mali.

Besides gold, Mali has lower-value metals like copper and iron. But in this land-locked country, where transportation is costly, gold is the mineral that glitters. "Gold is one commodity that can be transported economically by air," says Mr. Diallo.

Gold could offer Mali an escape route from poverty and hunger. "If Mali were able to attract investors to all its potential gold mines," says Mr. Huggins, "it could use the proceeds to promote cotton and livestock exports." Gold earnings could also be used to attain self-sufficiency in food production, one of the country's most pressing development challenges. While gold mining offers a rich return on investment in as little as three years, its start up costs are too great for Mali to afford. In order to reach its full gold production capacity, Mali's most urgent need is to attract more foreign investors. ■

CONSERVATION

Turning Ancient Ruins

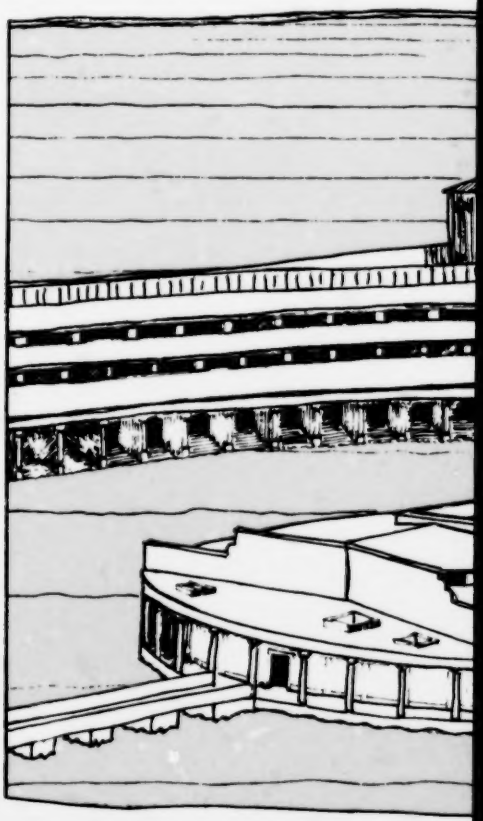
Tunisia maps its

By Christopher McIntosh

Tunis, Tunisia—One of the great glories of Tunisia is the richness of its archaeological remains. The Carthaginians, who lived here in ancient times, were a seafaring people who vied with Rome for control of the Mediterranean. In 146 BC their capital, Carthage, was sacked by the Romans, fulfilling the words of the orator Cato: *Delenda est Carthago*—"Carthage must be destroyed." Under the Romans, Carthage was rebuilt and became one of the most splendid cities of the empire. Later came Arab invaders, bringing Islam, now the predominant influence in the country. Each successive civilization left an abundance of artifacts and architecture.

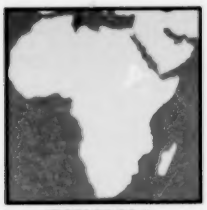
Tunisians long took these remains for granted, building over them and even plundering them for construction material. In recent years, however, the government has come to recognize that these relics need to be protected, both for their historical significance and for their value as tourist attractions. One of the first sites to benefit was Carthage.

Part of the ruins of Carthage, now preserved as an archaeological park.



Christopher McIntosh/UNDP

Artist's impression of the port of Carthage in the Second Century BC.



TUNISIA

Into New Resources

Archaeological heritage

itself, located in what is now a select suburb of Tunis. A hilltop, with remains of the old city and a stunning view of the bay, has been turned into an archaeological park.

The government realized, however, that it was not enough just to preserve a few well-known sites. In 1985 Tunisia turned to the United Nations Development Programme (UNDP) for help in compiling a comprehensive inventory of the country's historic remains, pinpointing their locations, estimating their importance and designing laws for their protection. UNDP has contributed US$129,000 to the project, executed by the United Nations Centre for Human Settlements and implemented by the Tunisian Ministry of Equipment and Housing.

"My initial reaction was cautious, as the project lay completely outside the overall country programme," says Kees Wijnen, who was Deputy Resident Representative in Tunisia when a

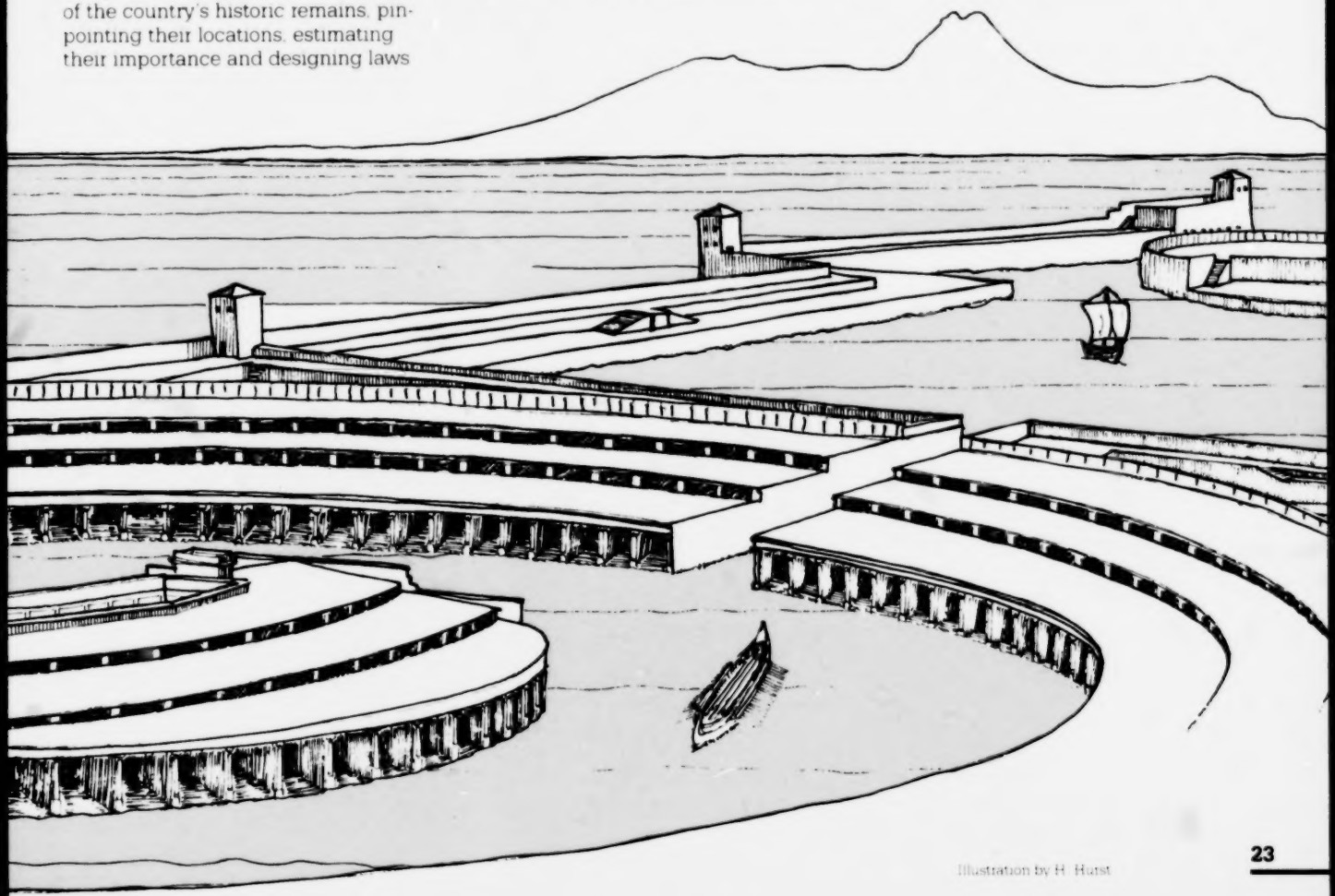


Illustration by H. Hurst

Tunisian Ministry of Housing

An 18th century Ottoman mosque at Ghai el Melk.

government official first came to UNDP with the proposal. "On the other hand, I saw how important it was. Many of these remains had already been destroyed when builders had come across them unexpectedly and simply rolled over them with bulldozers to avoid construction being interrupted. But with a proper inventory of sites and adequate legal protection, this kind of destruction could be avoided."

Noureddine Chiha, a town planning expert in charge of the project for the Tunisian government, believes that conservation should be part of an overall planning strategy. "In recent years there has been a movement of people away from the interior and towards the coast, where the climate is milder and jobs more plentiful. If such migration continues, we estimate that by the end of the century 75 per cent of our people will be living on the coast. The government is therefore trying to build up industry, including tourism, in the inland areas to draw people back."

Archaeology is an important part of this strategy. "It's less easy to attract tourists inland than to the coast," Mr. Chiha says. "That is one reason why we are keen to exploit our archaeological patrimony."

The project, co-ordinated by the Swiss architect and urban planner, Jean-Pierre Hamel, includes archaeologists, historians, architects, photographers, cartographers and legal experts. Members of the team photograph the monuments, estimate their importance and record their position, date of construction, measurements and state of preservation. Work is in progress on a series of archaeological maps for the whole country.

In addition, manuals have been drawn up, telling planners how to incorporate archaeological sites into development schemes, what steps to take when a site is discovered and how to preserve it for posterity. Members of the law faculty at the University of Tunis are studying the legal aspects of archaeological preservation, examining such questions as whether there should be penalties for destroying a site, and who should bear the responsibility for conservation.

A leading role in the project was played by the British architect and town planner, Donald Hankey, whose London-based firm of Gilmore Hankey Kirke Ltd. has long experience in combining urban upgrading with conservation, particularly in developing countries. "It is most important," he says, "for a country to maintain a sense of the relationship between today and yesterday in order to understand the roots of its own culture."

Part of his job was to help the Tunisians undertake a pilot project to try out the methods that had been developed for surveying, evaluating and conserving remains. The site chosen was Tabarka, a small island off the coast near the Algerian border, which was a Genoese colony for three centuries. Remains include a hilltop fort, a harbour and the buried ruins of the town, which was last inhabited in the 19th century. A tourist resort is being developed next to the island, and it is intended that the site will become a major attraction for visitors.

The experience gained at Tabarka will later be applied to other historic remains in the country—Greek settlements, Roman villas, Turkish mosques, Arab fortifications—which might otherwise fall into decay or be covered by concrete.

Paradoxically, Cato's much-quoted words have helped to immortalize the civilization that he hoped to destroy. Today, the legend of Carthage lives on, helping to unite archaeologists and planners in preserving what has been left behind by the Carthaginians and their successors. ■

Travel on foot is the chief means of transport in mountain villages.

CAMEROON

WOMEN

After the Harvest

Cameroonian women cut crop losses

By Mary Lynn Hanley

Bamenda, Cameroon—In a continent struggling to feed itself, Cameroon's North West Province is a bright spot on the horizon. Its lush green mountains are studded with sparkling waterfalls, verdant plantations of coffee, rice and maize, and thriving plots of potatoes, cassava and beans. Abundant rainfall and rich volcanic soils make the region the garden spot of the nation. Though it represents less than five per cent of Cameroon's land area, the province produces more than 75 per cent of the country's potato crop, as well as most of the maize, beans and vegetables sold in the cities.

Despite ideal growing conditions, the region hasn't even begun to realize its full potential. Because the few laterite roads connecting mountain farms with paved roads leading to towns are full of deep holes, trucks cannot transport food to market. Farmers must therefore carry what they have to sell down to the main roads, sometimes walking more than ten kilometres. Since storage facilities are available for less than one per cent of local production, crops spoil quickly in the hot, humid climate. This means that during the peak harvesting period in June and July markets are flooded with produce and prices are half what they would be three or four months later. Moreover, food losses are substantial—

an estimated 35 per cent for root and tuber crops alone.

The government is addressing these problems through a US$1 million project executed by the Food and Agriculture Organization of the UN (FAO), for which the United Nations Development Programme (UNDP) is providing $795,000. "We had to think of the post-harvest system as a whole instead of just a storage operation," says Mr. Aliou Diop, Chief Technical Advisor, who is from Canada. "We put a lot of emphasis on better information for producers and traders, better storage structures and improving transportation from farms."

The beneficiaries are all small farmers, more than 95 per cent of them women, the main food producers here as in most of Africa. "In the whole province we have 44 women's groups, averaging 40 to 50 members, storing potatoes," says Mr. Diop. "We're reaching over 2,000 people."

A self-help approach encourages women to identify and find their own solutions to crop production, marketing and storage problems. "We want the groups to be independent," says Marianne Flach, FAO expert from the Netherlands who periodically meets with the women in their villages.

One participant is Frieda Tangye, president of the 140-member women's co-operative in the mountain village of Awing, about an hour and a half from Bamenda by landrover over a deeply rutted road. She and her group grow maize, potatoes and beans, which they sell in the Bamenda market. Ms. Tangye rates marketing as her number one problem. "We grow a lot of maize but can't transport it," she says, "and there is no way to save maize. We also need a maize mill and access to actellic powder." The powder is used to prevent stored maize from weevil damage.

Ms. Tangye's group has already found a way to avoid potato blight, a disease affecting their most important cash crop. They have raised $400 toward the construction of a ventilated potato store the size of a large house. The structure is being completed with a matching grant of $600 from MIDENO, the local rural development authority. Land, labour and materials from the community are getting the job done. The store is made of locally-produced mud bricks, has a roof of thatch, and a slotted bamboo platform on which the potatoes are placed. Ventilation flaps, opened at night when temperatures go down, ensure a flow of fresh, cool air which is retained during the hot days. The store is one of more than 20 such facilities to reduce spoilage built in the North West Province.

But the store will not help in getting food down from the mountains. For this, Ms. Tangye proposes a farm-to-market road. However, this is not likely to become a reality any time soon, given the government's limited resources.

Ms. Flach suggests an alternative. "Other groups have purchased a donkey to carry crops to market," she says. She explains how women lead the animal, laden with food, down to the main road where they are met by traders. Then they go off to their fields while the donkey finds its own way back home. "How much would it cost?" asks Ms. Tangye. "From $115 to $315," says Ms. Flach. It is definitely an alternative the group will consider.

One woman whose group is already benefiting from a donkey is Florence Mosongo. She is one of nearly 100 "contact farmers" who have been helped to obtain improved storage and marketing

FAO Expert Marianne Flach (*centre*) confers with members of a women's group in Awing.

Photos by Mary Lynn Hanley, UNDP

A potato store-house built from local materials keeps tubers safely for five months.

A veterinary health assistant advises Florence Mosongo (*left*) on caring for her donkey.

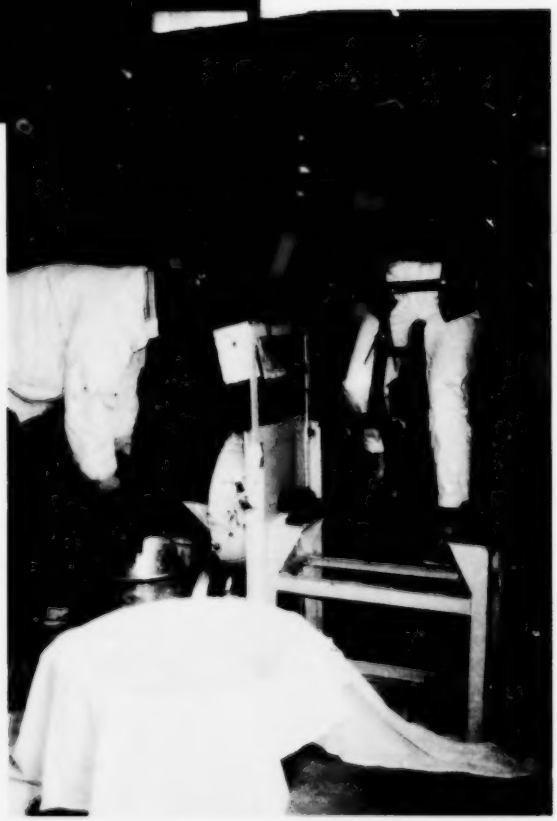
facilities and, in return, allow their farms to be used for demonstration purposes. In one corner of Ms. Mosongo's compound dehusked cobs are being heated in an improved maize drier designed to use firewood efficiently. "With the old method it took from August to November before we got dry maize," she says. "Now it takes only a few days."

The group also has a bin for protecting seed potatoes from mice and rot, as well as a small rectangular potato store where 750 kilos of tubers can be safely kept for up to five months. Such a structure can be built for as little as $20, using local labour and materials. "Before, the women just stored potatoes in a corner of the house," says Mr. Diop.

So far, over 1,600 farmers and more than 500 village extension workers and other field staff have been trained in production, storage and marketing. The project has also introduced covered bins equipped with locks at market sites. These offer protection from rain and thieves and make it possible to store produce overnight.

Mr. Diop has also set up a unit to demonstrate how women might process dehydrated yams, cocoyams and potatoes for sale. Tubers are washed and peeled in a hand-driven peeler and any remaining eyes dug out. They are then evenly sliced in a bicycle-pedaled device, blanched to prevent darkening, cooled and dried outdoors in the sun. "Eight women working with this system could process up to a tonne of potatoes a day," says Mr. Diop. The system is currently being observed by extension workers at the demonstration centre close to Bamenda and there are plans to show it in nearby villages. Recipes will also be developed to create a market for the new products.

Similar initiatives are now being launched in Cameroon's Western Province. There are also plans to incorporate many of the approaches pioneered in the North West Province into a large-scale Food Security Project which is receiving World Bank aid and will cover six provinces. ■



A mechanical potato slicer is pedaled like a bicycle.

PROFILE

Privatization Pundit

Professor Vemuri V. Ramanadham

By Christopher McIntosh

United Nations, New York—With the privatization bandwagon gaining momentum daily, experts on the subject are much in demand throughout the world. One of the most sought-after is a spry, soft-spoken 70-year-old Indian who carries with him the scholarly aura of the Oxford senior common room. He is Professor Vemuri V. Ramanadham, a consultant who serves as Co-ordinator of the Interregional Network on Privatization of the United Nations Development Programme (UNDP).

Hearing that he had turned his attention to private enterprise after four decades as an expert on the public sector, a friend once asked him: "Rama, when did you change your religion?" Privatization, he replied, was not his religion. "My aim," he says, "is to help each country elevate itself to its full potential and attain the highest possible quality of life." He sees privatization—or "marketization," as he prefers to say—as one way of achieving that goal.

Many people who know him as the author of numerous books and articles on economic subjects, are surprised to learn that he has also written poetry, novels, short stories, plays, operas and works of literary criticism—all penned in his native Telugu. His operas and dramas have been performed, and some of his literary works have been used as text books in Indian universities.

Professor Ramanadham's recent schedule speaks for itself. In March he was in Panama conducting a privatization workshop. Over the next couple of months he travelled to Nepal, India, Nigeria, the United Kingdom and Venezuela to consult with experts on the formulation of his forthcoming *Guidelines on Privatization*. In June he was in Poland advising the government on their plans for selling state enterprises. Meanwhile, back in New York in July, he was busy revising the *Guidelines* with the help of an expert group drawn from governments and international agencies. The guide, due to be published in January by UNDP, is expected to influence privatization policies for decades to come.

Hailing from Andhra Pradesh, India, Professor Ramanadham pursued a distinguished university career in economics and business administration before joining the United Nations in 1970 and spending 12 years as a roving adviser on public enterprises. There followed an interval at the London Business School, another three years with the UN in Kenya, then two years at Templeton College, Oxford, where he conducted seminars and organized a UNDP interregional workshop on privatization. He returned to New York last year to take up his present position.

Although he could have had an entirely different career as a literary scholar, he does not regret the choice he made. "My literary interests," he says, "have helped me to develop an understanding of the human factor, which is much more important than just money and technology in the economic growth of developing countries." ■

Enquiries regarding the *Guidelines on Privatization* should be directed to Philip Reynolds, DGIP, United Nations Development Programme, One United Nations Plaza, New York, NY 10017.

It's Time for a World Tax for Development

By Ruben P. Mendez

United Nations, New York—Starting in the late 1960s, a long and tragic drought decimated the western Sahel. More than a quarter million people died of starvation, thirst and disease in a famine that was to be repeated in other parts of Africa.

In 1977, representatives of 95 countries met in Nairobi to discuss ways of combating the process of desertification. Experts from all over the world forged a Plan of Action, involving reforestation, range, water and integrated land management, and improved agricultural practices. Industrialized countries, however, balked at financing the Plan, stating that existing financial mechanisms were sufficient.

As chief economic adviser to the Conference, I was to work on ways to finance the Plan of Action. Experience had taught me that the present pattern of international public financing, based almost entirely on voluntary contributions, would not work. I proposed that "fiscal measures involving automaticity"—in other words, compulsory means of finance—be studied as part of the Plan.

During the next two years, I helped conduct studies on "automatic" measures of financing international public needs. These studies recommended various measures for generating large sums of money and rationalizing the development and use of our natural resources. Included were these options:

- Charges for the use of the global commons, such as the deep ocean bed, marine fisheries, Antarctica and the Southern Ocean, radio frequencies, parking slots for satellites in geostationary orbit, and eventually the Moon and other celestial bodies.
- A tax on overall trade or specific traded commodities, such as oil. Taxes on military budgets and arms transfers.
- Earmarking savings from disarmament for use in development.

Because they would be drawn from such a large base, low user fees and tax rates could generate vast sums. International trade, as measured by the volume of imports, reached US$3,140 billion in 1989. A one per cent levy on all goods passing through customs could generate over $31 billion annually. Adjustments would have to be made for least developed countries (LDCs) and for countries like Singapore, which are almost totally dependent on external trade. A five per cent tax on military expenditures, which reached $1,000 billion in 1987, could yield $50 billion—

Alnarjeh Dabbah / UNDP

Environmentalist Ruben P. Mendez.

"Speaking Out" is open to readers who wish to offer clear, well-supported positions on development issues. Contributions do not necessarily reflect the views of UNDP.

more than the entire volume of international development assistance that year.

Taxes and fees, furthermore, could help ease critical global problems besides mobilizing revenues. A tax on oil would encourage conservation and reduce emissions of carbon dioxide, the chief "greenhouse gas." A tax on military budgets and arms transfers would enhance prospects for disarmament and reduce international tensions. Fees or leases for the use of ocean fisheries would help prevent depletion of this fast-diminishing source of vital protein.

All of these measures, which I consider to be essential elements of any system of international public finance, were first proposed a dozen years ago. Although they were endorsed by the Secretary-General and the Brandt Commission in 1980 and revived in part by the Brundtland Commission in 1987, they remain political hot potatoes. No one likes to talk about taxes. But the cost of remaining silent is high.

In the 14 years since the adoption of the Plan of Action to Combat Desertification, little has been done because of lack of funding. The same is true of various other United Nations "plans of action" to deal with such critical issues as the environment, education, water and African economic recovery—to cite only a few initiatives. There has been planning but little action for lack of money.

In the meantime, environmental degradation has assumed global dimensions, threatening the oceans, the air we breathe, the planet's protective ozone layer, and even safety in outer space where our new frontiers appear to lie.

These problems all have a common feature: they are too immense, too complex and too costly to be solved by individual nations, no matter how powerful. They demand concerted action and combined resources.

A system of international public finance—as opposed to "foreign aid" based on charitable contributions by the rich countries—would go a long way in meeting these needs.

Nor could the time be more propitious for taking such a bold step. The Cold War has ended. The Security Council is at last functioning in the way the Charter envisaged. The UN has gained a broad measure of recognition and respect. This should be followed by measures to put it and its programmes on a sound financial footing. The European Community is now taxing its member states, and the Convention on the Law of the Sea features user charges for the exploitation of the deep ocean bed.

To be sure, problems abound. Who will manage a system of international public finance, collect the fees and decide who gets the proceeds?

An appropriate place to consider such questions is the forthcoming United Nations Conference on Environment and Development, to be held in Brazil in June 1992. The conference will adopt a Charter for the Earth. As part of the conference's agenda, the earth's nation-states that can afford to do so should agree to binding provisions for supplying the funds and for the self-restraints needed to make the Charter effective for all humankind. Some form of international taxation and public finance could make all the difference in making the Charter, unlike previous plans of action, actually work. ■

Environmentalist ***Ruben P. Mendez*** *holds a Ph.D. in economics and is currently chief of the Technical Support Division of the United Nations Sudano-Sahelian Office. He has recently completed a book on international public finance that will be published later this year by Oxford University Press.*

Putting it All Together

Teaching women to read in Yemen.
Fighting river blindness in Africa.
Testing handpumps worldwide.
Protecting tropical forests.
Starting a newspaper in Bhutan.
Joining international action against AIDS.
Planning a city in Cyprus.
Building roads in Burkina Faso.
Dealing with debt in Costa Rica.
Restoring artifacts in Ecuador.
Stabilizing soil in the Sudan.
Helping nations work together.

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